

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

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Claim 1. (currently amended) A remotely controlled and monitored spa, comprising:

- A) a spa controller,
- B) an interface signal converter, electrically connected to said spa controller, and
- C) a remote computer connected to said interface signal converter via a communications link, ~~wherein said remote computer is~~ and programmed to display a control page comprising information related to the control and status of said remotely controlled and monitored spa,

wherein said interface signal converter converts communication signals transferred from said remote computer via said communications link and directs the converted signals to said spa controller, and wherein said interface signal converter converts signals from said spa controller to be communicated to said remote computer via said communications link.

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Claim 2. (original) The spa as in Claim 1, wherein said interface signal converter comprises an RS transceiver.

Claim 3. (original) The spa as in Claim 2, wherein said RS transceiver is an RS-485 transceiver.

Claim 4. (original) The spa as in Claim 1, wherein said interface signal converter comprises an IR transceiver.

Claim 5. (original) The spa as in Claim 1, wherein said interface signal converter comprises an RF transceiver.

Claim 6. (original) The spa as in Claim 1, wherein said interface signal converter is capable of transceiving at least two different types of communication signals.

Claim 7. (previously presented) The spa as in Claim 1, wherein said communication signals are an RS differential signal and an IR signal.

Claim 8. (original) The spa as in Claim 1, wherein said interface signal converter is removably attached to said spa controller.

Claim 9. (original) The spa as in Claim 8, wherein said spa controller defines a cavity, wherein said interface signal converter is removably attached to said spa controller via said cavity.

Claim 10. (original) The spa as in Claim 1, wherein said interface signal converter is rigidly attached to said spa controller.

Claim 11. (original) The spa as in Claim 1, wherein said remote computer is connected to said interface signal converter via a communications wire.

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Claim 12. (original) The spa as in Claim 1, wherein said communications link is a wireless communications link.

Claim 13. (original) The spa as in Claim 1, further comprising a second remote computer for sending commands to said spa controller and receiving data from said spa controller, wherein said second remote computer is connected to said spa controller via a computer network.

Claim 14. (original) The spa as in Claim 13, wherein said computer network is the Internet.

Claim 15. (original) The spa as in Claim 1, wherein said communications link is the Internet.

Claim 16. (currently amended) The spa as in Claim 1, wherein said ~~remote computer is a spa owner computer and said control page is a spa owner page.~~ displays symbols arranged to facilitate:

- A) control of at least one water pump, and
- B) control of at least one heater.

Claim 17. (currently amended) The spa as in Claim 1, wherein said ~~remote computer is a spa dealer computer for control by a spa dealer and wherein said control page is a spa dealer page.~~ comprises symbols for monitoring spa errors.

Claim 18. (currently amended) The spa as in Claim 1, wherein said ~~remote computer is a spa manufacturer computer for control by a spa manufacturer and wherein said control page is a spa manufacturer page.~~ comprises:

- B/
- A) symbols for configuring at least one water pump, and
  - B) symbols for configuring at least one heater.

Claim 19. (currently amended) The spa as in Claim 1, wherein said ~~wherein said remote computer is a spa service technician computer for control by a spa service technician and wherein said control page is a spa service technician page.~~ comprises symbols for setting the temperature inside said spa.

Claim 20. (cancelled)

Claim 21. (original) The spa as in Claim 1, wherein said communications link comprises a computer network.

Claim 22. (original) The spa as in Claim 21, wherein said computer network is the Internet.

Claim 23. (original) The spa as in Claim 21, wherein said computer network is a LAN.

Claim 24. (original) The spa as in Claim 1, wherein said remote computer is a PDA.

Claim 25. (original) The spa as in Claim 1, wherein said remote computer is a cellular phone.

Claim 26. (original) The spa as in Claim 1, further comprising a spa skirt wherein said remote computer is located underneath said spa skirt.

Claim 27. (original) The spa as in Claim 26, wherein said remote computer is connected to a computer network.

Claim 28. (original) The spa as in Claim 1, wherein said remote computer is used to is used to monitor and control the spa.

Claim 29. (original) The spa as in Claim 1, wherein said remote computer is used to download software to said spa controller.

Claim 30. (currently amended) A remotely controlled and monitored spa, comprising:

- A) a spa controller means,
- B) an interface signal converter means, electrically connected to said spa controller means, and
- C) a remote computer means connected to said interface signal converter means via a communications link, wherein said remote computer means is programmed to display a control page comprising information related to the control and status of said remotely controlled and monitored spa,

wherein said interface signal converter means converts communication signals transferred from said remote computer means via said communications link, and wherein said interface signal converter means converts signals from said spa controller means to be communicated to said remote computer means via said communications link.

Claim 31. (cancelled)

Claim 32. (cancelled)

Claim 33. (currently amended) The ~~spa~~ method as in Claim 32 142, wherein said programming instructions program said spa controller to perform at least one function selected from the group consisting of: to set the speed of a spa water pump, to set the speed of a spa air blower, and to set the temperature of a spa heater element.

Claim 34. (cancelled)

Claim 35. (cancelled)

B) Claim 36. (currently amended) The ~~spa~~ method as in Claim 35 142, wherein said programming instructions comprise an instruction to said spa controller to set a maximum allowable temperature inside said spa, wherein said maximum allowable temperature is modifiable only by said spa controller manufacturer computer.

Claim 37. (currently amended) The ~~spa~~ method as in Claim 36, wherein said maximum allowable temperature is set in accordance with industry regulations.

Claims 38 – 93. (cancelled)

Claim 94. (currently amended) ~~A control system as defined in Claim 40~~ A remotely controlled and monitored spa, comprising:

A) a spa controller,

B) a remote computer,

C) an interface signal converter, electrically connected between said remote computer and said spa controller, wherein said interface signal converter comprises:

- i. a first interface for receiving signals over a first type of link;
- ii. a second interface for receiving signals over a second type of link;
- iii. a processing unit adapted for:
  1. selecting one of said first interface and said second interface on the basis of an input selection signal;
  2. processing signals received at the selected one of said first interface and said second interface to derive converted signals, said converted signals being compatible with said spa controller;
- iv. a third interface for directing said converted signals to said spa controller.

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Claim 95. (currently amended) ~~A control system as defined in Claim 94~~ The spa as in Claim 94, wherein said input selection signal is derived at least in part on the basis of a signal received over either one of the first type of link and the second type of link.

Claim 96. (currently amended) ~~A control system as defined in Claim 95~~ The spa as in Claim 95, wherein the first type of link is a wireless link.

Claim 97. (currently amended) ~~A control system as defined in Claim 96~~ The spa as in Claim 96, wherein said wireless link is an infra-red link.

Claim 98. (currently amended) ~~A control system as defined in Claim 96~~ The spa as in Claim 96, wherein said wireless link is a radio-frequency (RF) link.

Claim 99. (currently amended) ~~A control system as defined in Claim 96~~ The spa as in Claim 96, wherein the second type of link is a wire-line link.

Claim 100.(currently amended) ~~A control system as defined in Claim 99~~ The spa as in Claim 99, wherein the first type of link is an IR link and the second type of link is a serial link.

Claims 101 – 138. (Cancelled)

Claim 139. (new) A spa network comprising:

A) plurality of remotely controlled and monitored spas, each of said spas comprising:

1. a spa controller,
2. an interface signal converter, electrically connected to said spa controller, and

B) a remote computer connected to each of said interface signal converter via a communications link, wherein said remote computer is programmed to display a control page,

wherein each of said interface signal converters converts communication signals transferred from said remote computer via said communications link and directs the converted signals to an associated spa controller, and wherein each of said interface signal converters converts signals from said associated spa controller to be communicated to said remote computer via said communications link, wherein each of said plurality of remotely controlled and monitored spas is in control communication with said remote computer via said communications link.

Claim 140. (new) The plurality of remotely controlled and monitored spas as in Claim 139, wherein said remote computer is located at facilities of a spa dealer.

Claim 141. (new) A method for monitoring the status of a plurality of sold remotely controlled and monitored spas, comprising the steps of:

A) selling said plurality of remotely controlled and monitored spas, wherein each of said plurality comprises:

3. a spa controller,

4. an interface signal converter, electrically connected to said spa controller, and

B) utilizing a remote computer to establish a communications link with said sold plurality of remotely controlled and monitored spas,

wherein said interface signal converter converts communication signals transferred from said remote computer via said communications link and directs the converted signals to said spa controller, and wherein said interface signal converter converts signals from said spa controller to be communicated to said remote computer via said communications link.

Claim 142. (new) A method for programming a spa prior to the sale of said spa comprising the steps of:

A) utilizing a remote computer to establish a communications link with said spa, wherein said spa comprises:

1. a spa controller,
2. an interface signal converter, electrically connected to said spa controller,

B) transmitting programming instructions to said spa via said communications link, and

C) selling said spa,

wherein said interface signal converter converts communication signals transferred from said remote computer via said communications link and directs the converted signals to said spa controller, and wherein said interface signal converter converts signals from said spa controller to be communicated to said remote computer via said communications link.

Claim 143. (new) A method for troubleshooting and repairing a spa comprising the steps of:

A) utilizing a remote computer to establish a communications link with said spa, wherein said spa comprises:

1. a spa controller,
2. an interface signal converter, electrically connected to said spa controller,



B) receiving error reports from said spa controller via said communications link,  
and

C) repairing said spa,  
wherein said interface signal converter converts communication signals transferred from said remote computer via said communications link and directs the converted signals to said spa controller, and wherein said interface signal converter converts signals from said spa controller to be communicated to said remote computer via said communications link.

Claim 144. (new) A method for remotely controlling and monitoring a spa comprising the steps of:

A) utilizing a remote computer to establish a communications link with said spa,  
wherein said spa comprises:

1. a spa controller,
2. an interface signal converter, electrically connected to said spa controller,

B) transmitting operating instructions to said spa via said communications link,  
wherein said interface signal converter converts communication signals transferred from said remote computer via said communications link and directs the converted signals to said spa controller, and wherein said interface signal converter converts signals from said spa controller to be communicated to said remote computer via said communications link.

Claim 145. (new) A method for programming a spa comprising the steps of:

A) utilizing a remote computer to establish a communications link with said spa,  
wherein said spa comprises:

1. a spa controller,
2. an interface signal converter, electrically connected to said spa controller,

B) transmitting programming instructions to said spa via said communications link,  
and

B) wherein said interface signal converter converts communication signals transferred from said remote computer via said communications link and directs the converted signals to said spa controller, and wherein said interface signal converter converts signals from said spa controller to be communicated to said remote computer via said communications link.

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